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basic imagery interpretation report

Arsenyev Airframe Plant 116
USSR (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

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USSR

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WNINTEL

Z-14617/82
RCA-09/0024/82
NOVEMBER 1982
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INSTALLATION OR ACTIVITY NAME					COUNTRY
Arsenyev Airframe Plant 116					USSR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	44-08-59N 133-15-23E 44-08-35N 133-16-04E				

MAP REFERENCE

DMAAC. USATC, Series 200, Sheet 0282-22, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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ABSTRACT

1. (S/WN) This report—updating previous NPIC reports discusses activity at Arsenyev Airframe Plant 116, USSR, from and satisfies the basic reporting requirement for this installation. The report also discusses activity at Arsenyev Airfield, the test and flyaway field for the plant.

2. (S/WN) Arsenyev Airframe Plant is the primary production facility for HIND attack helicopters. The SS-N-2 (STYX) naval missile is also produced at the plant. Until recently, the YAK-50 aerobatic aircraft was also produced there.

3. (S/WN) During the reporting period, significant construction at the plant—including that still underway on the information cutoff date—resulted in an increase of approximately 30,500 square meters of floorspace, making a total floorspace of approximately 260,700 square meters at the plant. All of the construction was either direct support or general purpose.

4. (S/WN) Included in this report are a location map, 12 annotated photographs/drawings, and two tables of mensural and/or chronological data.

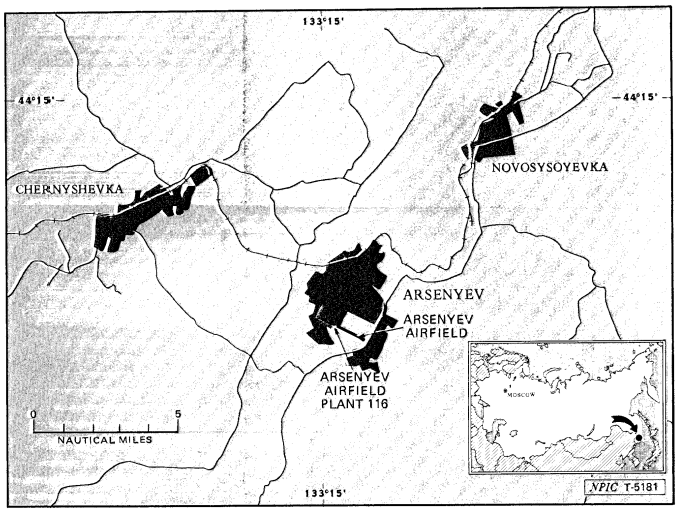

FIGURE 1. LOCATION OF ARSENYEV AIRFRAME PLANT 116 AND ARSENYEV AIRFIELD, USSR

BASIC DESCRIPTION

Construction

5. (S/WN) During the last four years, construction at Arsenyev Airframe Plant 116 and at its associated airfield (Table 1 and Figures 1 and 2) was 72 percent direct support and 28 percent general purpose. Three buildings in very early stages of construction as of and with undetermined functions have not been included in these percentages. The total floorspace added since the last report was including floorspace figures of buildings still under construction. During the same period, of floorspace were razed, resulting in an overall increase of meters of floorspace at the plant during the four-year period (Table 1).

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6. (S/WN) Of the construction dedicated to direct support, two buildings were shop/support, two were administration/engineering, and one was administration. Also, an addition to a shop/support building was constructed. Of the general-purpose construction, three buildings were support, three were storage, one was storage/support, and one was airfield operations. In addition, sections to a compressor building and to two storage buildings were constructed (Table 1 and Figures 3 and 4).

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Table 1.
Mensuration and Construction Data, Arsenyev Airframe Plant 116
(Keyed to Figures 3 and 4)

This table in its entirety is classified SECRET/WNINTEL

Item	Function	Dimensions* (m) L	W	H	Floorspace Section	Total	Date Observed Complete	Remarks
51	Shop/stor bldg (additions)							
b	Stor sec							
c	Spt sec							
60	Comp bldg (additions)							
b	Comp/spt sec							
c	Spt sec							
70	Admin bldg							
a	Spt sec							
b	Admin sec							5 stories
86b	Stor sec							
94b	Stor sec							
102	Bldg ucon							Very early stage of construction; floorspace tentative
103	Stor bldg							
104	Quonset stor bldg							
105	Admin/eng bldg							Late stage of construction; 5 stories
106	Bldg ucon							Footings only; floorspace tentative
107	Spt bldg							
108	Airfield operations bldg							
a	Ops/admin sec							3 stories
b	Ops/tower sec							4 stories
c	Ops/admin sec							3 stories
109	Spt bldg							
110	Spt bldg							
111	Shop/spt bldg							Built over site of bldg 38 which was razed
112	Shop/spt bldg							
113	Admin/eng bldg							Probably plant related
a	Admin/eng sec							
b	spt sec							
114	Stor/spt bldg							Probably plant related; previously not included
115	Stor bldg							Probably plant related; previously not included
116	Bldg ucon							Bldg has underground level and footings for aboveground level

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*Horizontal measurements are accurate to within ± [ ] of measured distance) and vertical measurements are accurate to ± [ ] of measured distance) both at a 95% confidence level.

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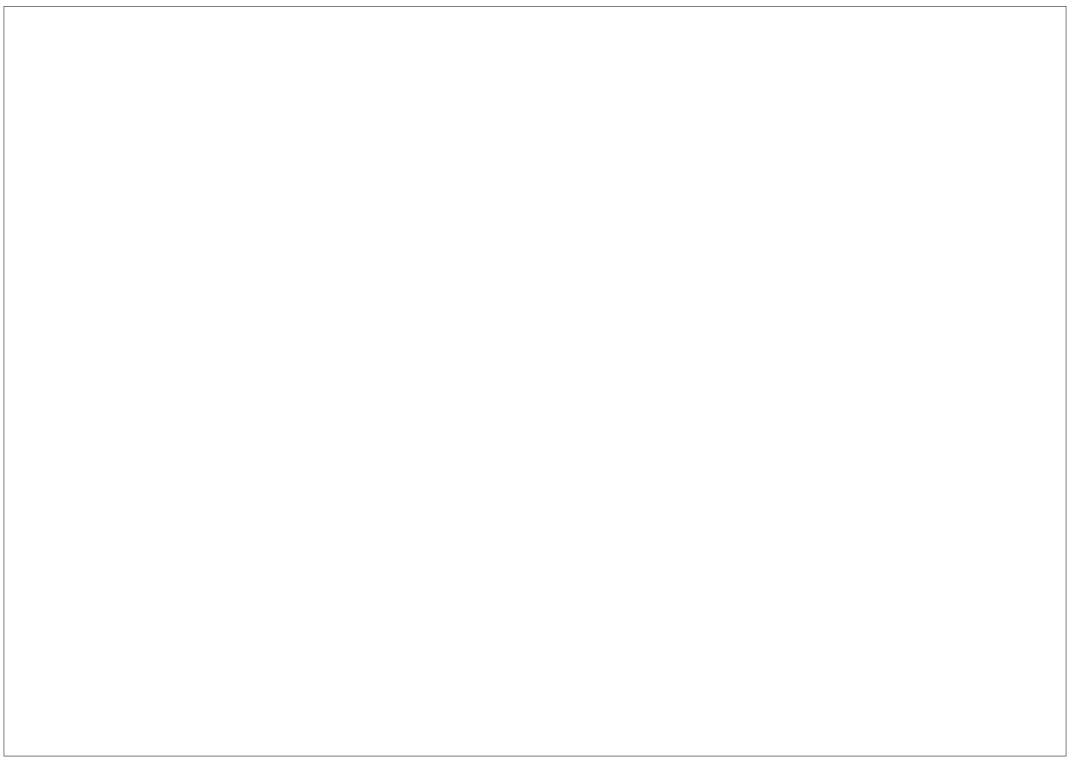

7. (S/WN) Between [redacted] completed construction included a shop/-support building (item 112, Table 1, and Figure 2), a quonset storage building (item 104), and an administration building (item 70); also completed were additions to a shop/storage building (item 51b) and to a storage building (item 94b, Table 1 and Figure 4). A total of [redacted] of floorspace had been completed by the end of 1979. 25X1 25X1

8. (S/WN) From [redacted] six buildings and additions to existing ones were constructed. In 1980, an addition to a storage building (item 86b, Table 1 and Figure 4) was completed. In 1981, a support section to a shop/storage building (item 51c, Table 1 and Figure 3), a storage building (item 103), two support buildings (items 107 and 110), and a shop/support building (item 111) were completed. A total of [redacted] of floorspace was added to the plant in 1980 and 1981. 25X1 25X1

9. (S/WN) From [redacted] three buildings and additions to existing ones were completed, and, during this same time, six buildings were under construction. An airfield operations building (item 108), a support building (item 109), and an administration/engineering building (item 113) were completed. Compressor/support and support sections to a compressor building (items 60b and 60c), an administration/engineering building (item 105), and three buildings with undetermined functions (items 102, 106, and 116, Table 1 and Figures 3 and 4) were still under construction. By [redacted] square meters of floorspace had been added, and [redacted] of floorspace were under construction. The floorspace figures for those buildings in early stages of construction are tentative. 25X1 25X1 25X1

10. (S/WN) Two previously constructed buildings (items 114, 115, Table 1 and Figure 3) with [redacted] square meters of floorspace have been included in the total floorspace of Arsenyev because of changes in the fenceline and road patterns of this plant, indicating that these buildings are plant associated. 25X1

11. (S/WN) Seven buildings were razed during the four-year period in preparation for new construction. Buildings 2, 4, 15, 38, 61, 63, and 64 discussed in the previous NPIC report[1] were razed. Buildings 2 and 38 were replaced by buildings 104 and 111, respectively (Figure 3). Building 4 was razed to construct an underground storage area on the west side of the plant (Figure 3). Buildings 61, 63, and 64 were razed to construct an underground storage area on the east side of the plant (Figure 3). Building 15 was razed to construct an additional quonset-type storage building in the northwestern plant area adjacent to a new support building (item 110 and Figure 3). A total of [redacted] of floorspace was razed. Therefore, the actual increase of plant floorspace over the four-year period was [redacted] resulting in an overall total of [redacted] of floorspace for the plant (Table 1). 25X1 25X1 25X1

Miscellaneous Construction

12. (S/WN) In addition to buildings, other construction was completed during the reporting period. In May 1980, the storage area on the west side of the plant was completed (Figure 3). In February 1982, the storage area on the east side of the plant was completed (Figure 3). In September 1978, a decorative cooling pond was constructed (Figure 3); by August 1981, a small addition to the airfield firing-in butt had been completed. Repaving of the largest helipad at the airfield began in 1982 (Figure 3), but little progress had been made by the information cutoff date of this report.

Production Activity

HIND

13. (S/WN) Arsenyev is the primary production installation for HIND attack helicopters. The MI-24 (HIND) is a MIL-designed five-bladed, twin-turbine powered, medium-weight, combat assault helicopter with mid-mounted wings and fully retractable landing gear.[2] The HIND D (Figure 5) and the HIND E (Figure 6) have been the two primary models produced at this plant in recent years. The HIND D is configured to carry the AT-2 (SWATTER) antitank guided missile (ATGM), and the HIND E is equipped to carry the AT-6 (SPIRAL) ATGM system. Both models are also configured to carry 57mm rocket pods (Figure 6) or bombs. One other model probably being produced at Arsenyev is a modified HIND E, equipped with a twin-barrel cannon on the starboard side of the aircraft (Figure 7). As of [redacted] this helicopter had not been confirmed at the plant on overhead imagery. 25X1

14. (S/WN) HIND helicopters observed at the plant decreased from the 1977 average of 15 to an average of six aircraft per coverage during the second half of 1978 (Table 2). This decrease probably indicated preparations for HIND E production and preceded the deployment of HIND Es. On coverage of excellent interpretability of October 1976, 11 HIND Ds were observed. By June 1979, no HIND Ds had been observed at the plant on imagery of excellent interpretability; however, 14 HIND Es were present. Although much of the imagery of Arsenyev Airframe Plant 116 has not been of sufficient interpretability to differentiate between models, HIND helicopters with SWATTER rails are no longer observed regularly at the plant. However, HIND Ds have continued to be observed at the other HIND production/refurbishment plant, Rostov Airframe Plant 168 [redacted] 25X1

15. (S/WN) During the same time that the number of HIND Ds decreased, a new HIND fuselage shipping container was identified (Figure 8). The HIND fuselage shipping container Type E was first

observed on [redacted] at Arsenyev. The [redacted] container was very similar to the HIND fuselage shipping container Type A, but the flat portion of the roof of the Type E container was smaller and offset (inset, Figure 8). The dimensions of the Type E container are very similar to those of the Type C container, which is fabricated at Rostov Airframe Plant 168. The Type E container has been observed both at Soviet HIND E and non-Soviet HIND D bases; therefore, the Type E container probably can accommodate both the export model of the HIND D and the Soviet Forces' HIND E. 25X1

16. (S/WN) Unidentified stores on HIND helicopters were first observed at Arsenyev on [redacted] 25X1
[redacted] and most recently on [redacted] (Figure 9). These unidentified stores, [redacted] 25X1
meter wide (Figure 10), are probable auxiliary (ferry) fuel tanks (Figure 11).

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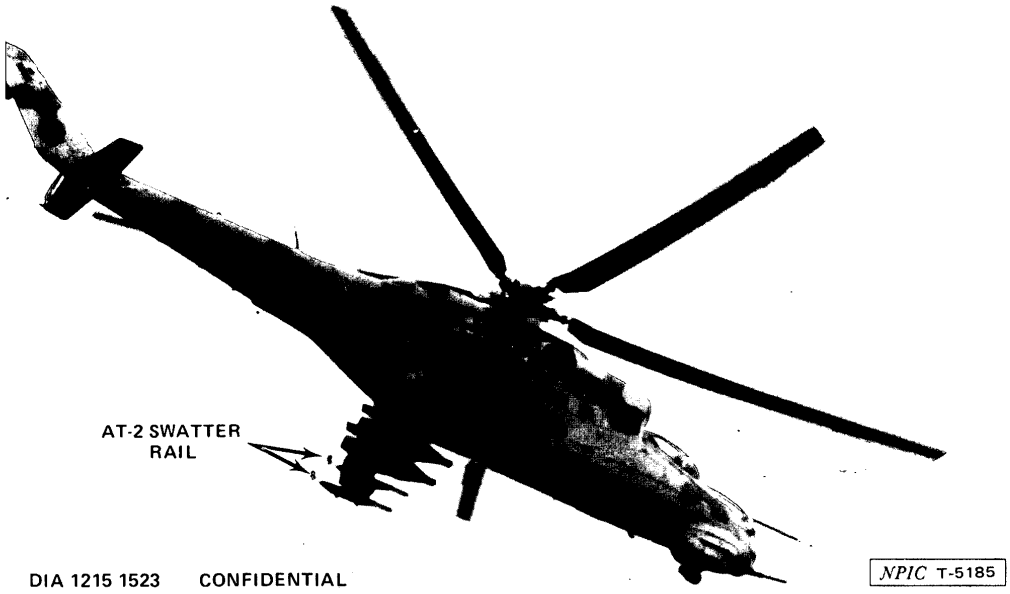


FIGURE 5. HIND D

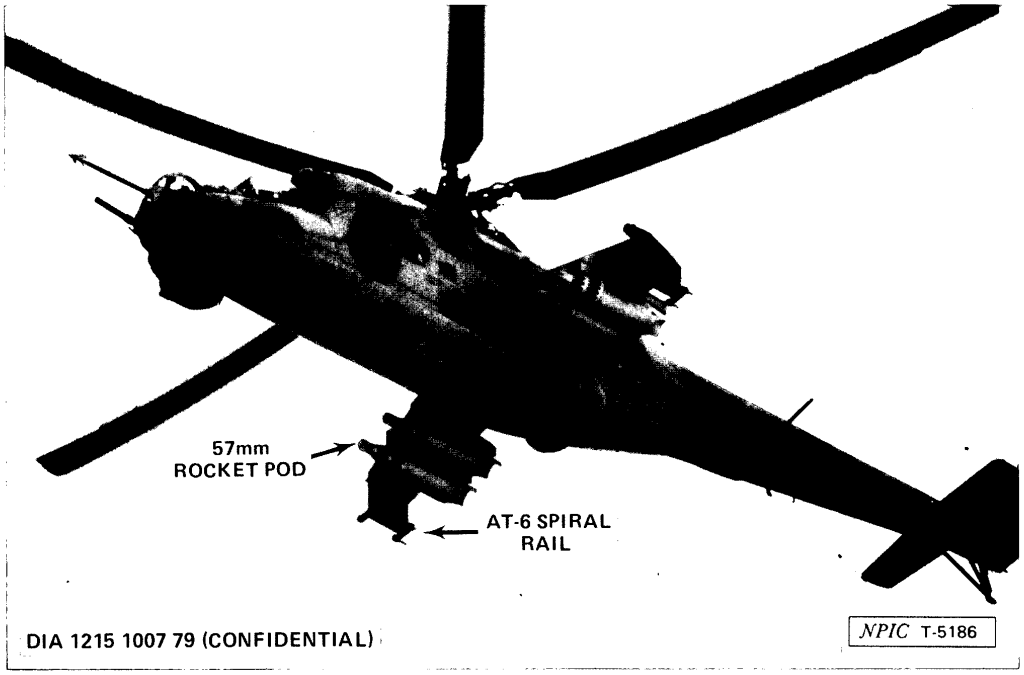
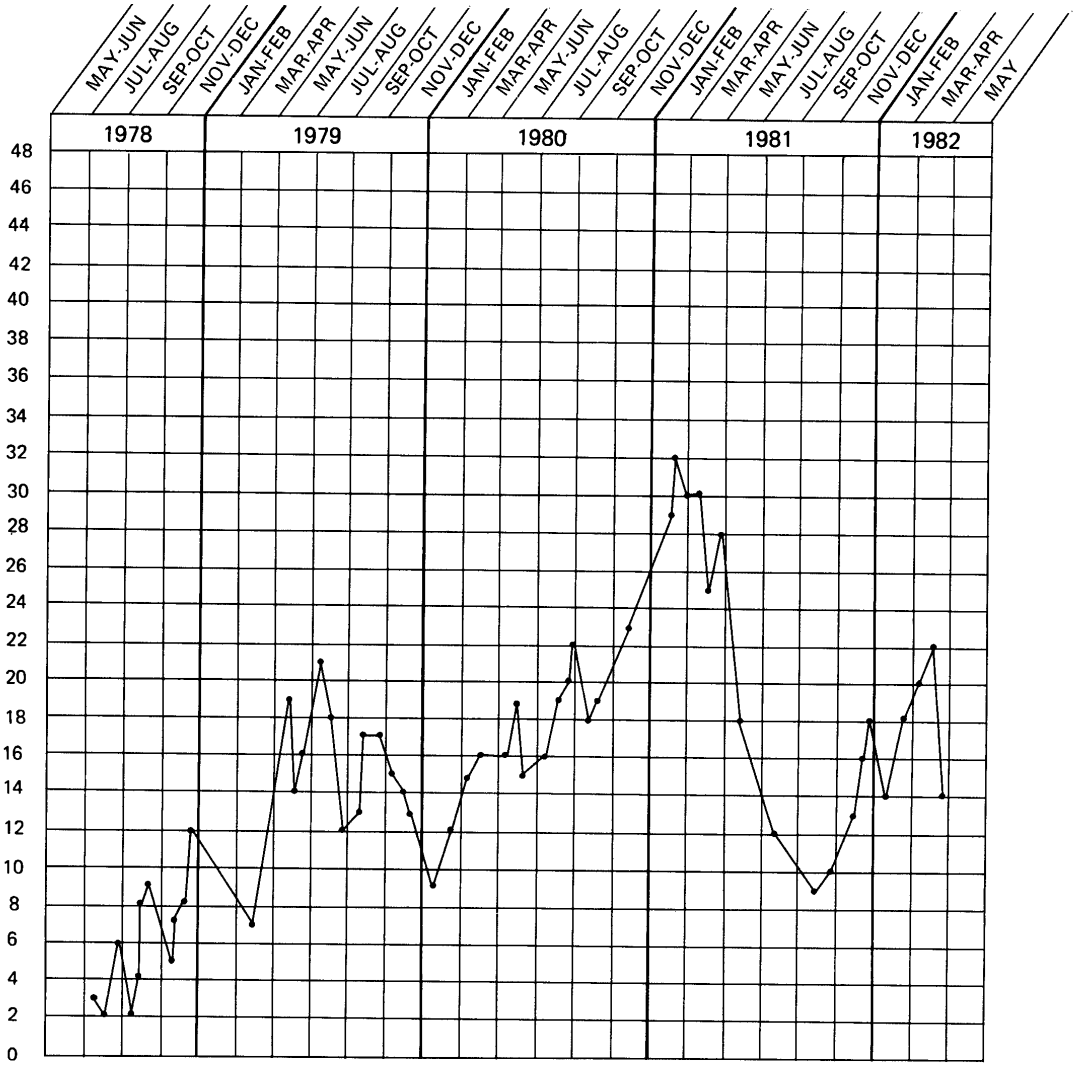


FIGURE 6. HIND E

Table 2.
Representative Observations of HIND D/E Helicopters at Arsenyev From May 1978 Through May 1982

This table in its entirety is classified SECRET/WNINTEL



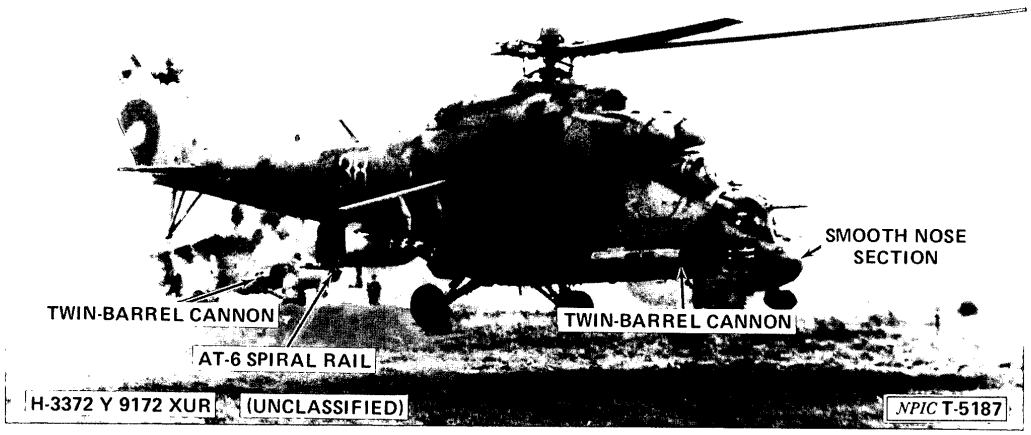


FIGURE 7. HIND E WITH TWIN-BARREL CANNON

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17. (S/WN) The numbers of HIND helicopters observed at Arsenyev began to increase in 1979 from the production lull in 1978 and peaked in early 1981 at 32 aircraft on [redacted] (Table 2). The usual number of HIND helicopters observed between December 1980 and April 1981 was 27 as opposed to 19, the average number for the previous six-month period. In late 1981 and early 1982, the number of HIND helicopters returned to a more usual count of 10 to 20. 25X1

18. (S/WN) It has been estimated that as of the middle of 1981[3] 11 HIND Es were being produced each month at Arsenyev. The same approximate rate was estimated for 1979 through 1981. Reanalysis of data indicated that HIND production decreased in late 1977 and through most of 1978 (see paragraph 14) to a monthly output of five at Arsenyev[4] rather than 11, as previously estimated.[5]

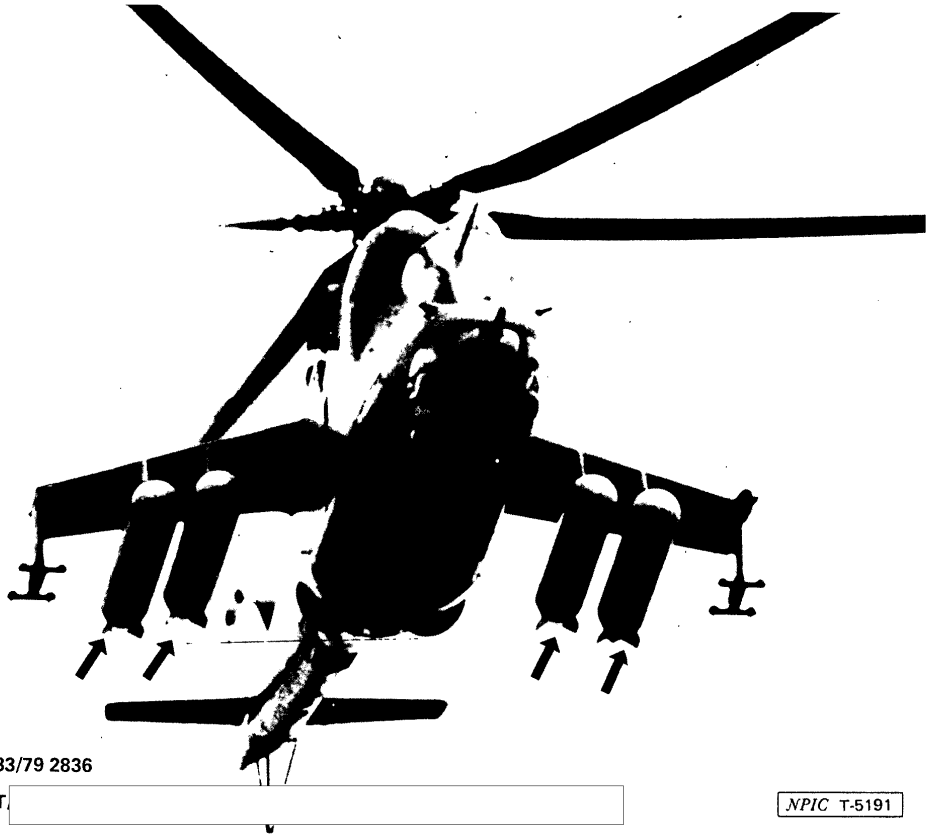
Missile Production

19. (S/WN) The SS-NX-22 (STYX)—a naval, antiship cruise missile—is also produced at Arsenyev. The missile, in production since the 1950s, is still in demand because it is carried aboard Soviet surface craft and is exported to countries such as Vietnam and Algeria. It is estimated that 375 STYX missiles per year[6] are being produced at Arsenyev.

20. (S/WN) STYX missile shipping containers (Figure 8) have been observed at Arsenyev in significant numbers for many years. The average number of missile containers observed during the reporting period was 40 to 50, although the count dropped as low as 20 for a short time.

21. (S/WN) Two probable SS-NX-22 missile shipping containers were in the crating/transshipment area at Arsenyev on [redacted] (Figure 12). These shipping containers were [redacted] with a height of [redacted] These dimensions are similar to those of the SS-NX-22 shipping containers observed at Chernomorskoye Missile Test and Evaluation Facility [redacted] where the missile has been undergoing testing. Two probably associated dollies, [redacted] long (axle to axle) and [redacted] wide, were adjacent to the shipping containers (Figure 12). The containers remained in the crating/transshipment area through [redacted] 25X1 25X1 25X1 25X1 25X1

22. (S/WN) Arsenyev has a long history of naval missile production with the STYX. Therefore, it is possible that the SS-NX-22 will go into series production there following its test phase. Furthermore, additional production-related floorspace, completed in 1977 (item 8 and Figure 3), added more than 38,000 square meters of available floorspace to Arsenyev without a corresponding increase in either STYX or HIND production.[1]



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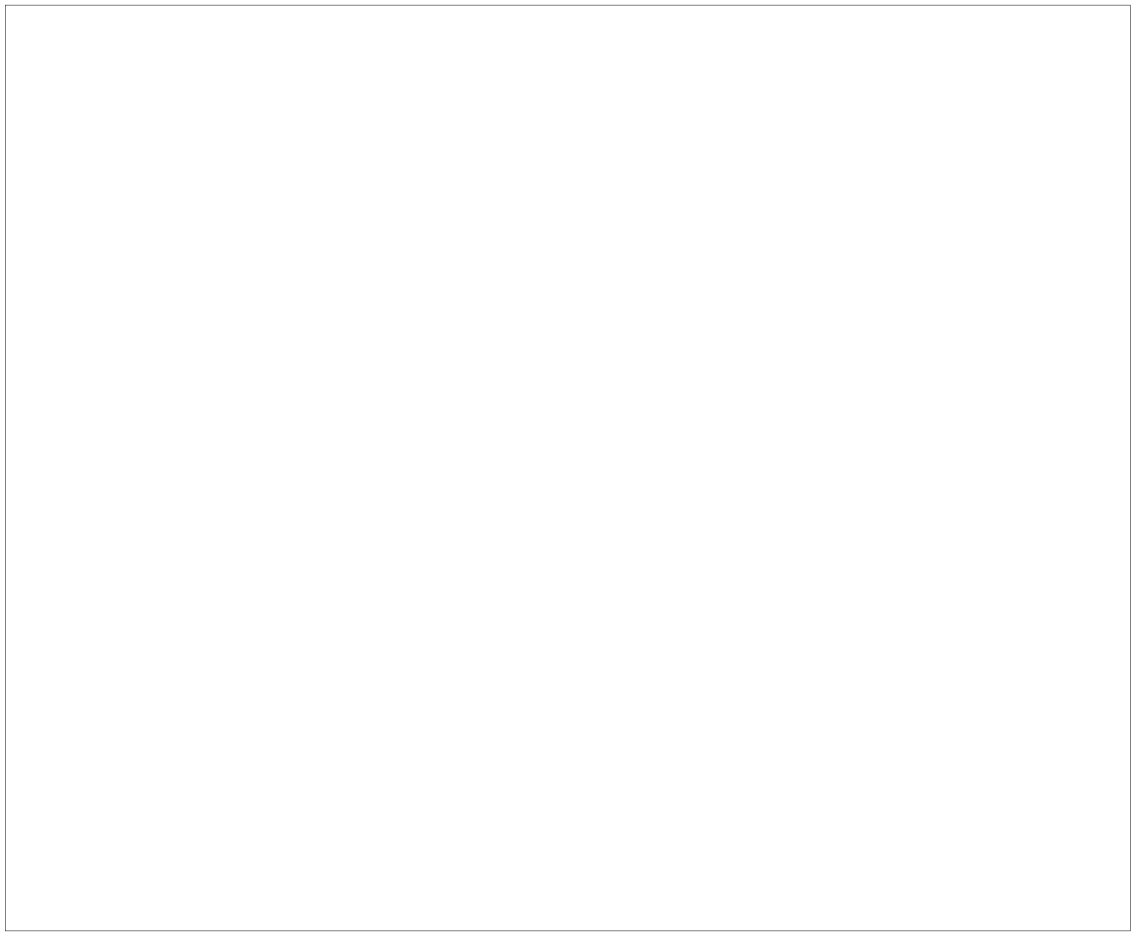
(SECRET) [redacted] NPIC T-5191 25X1

FIGURE 11. HIND E WITH FOUR PROBABLE AUXILIARY TANKS



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YAK-50 Production

23. (S/WN) Production of the YAK-50 aerobatic aircraft has been assessed to have ended in 1980. An assessment of one aircraft produced per month through 1980 was based mainly on observations of the aircraft at the plant when the number usually varied between two and four.[3] Since then, no more than two YAK-50s have usually been observed there; it is possible that they are the same two aircraft.

Arsenyev Airfield

24. (S/WN) During most of the reporting period, two HIP Cs and two to four COLTs were at the airfield. Other small fixed-wing aircraft (probably YAK-18s and CREEKs) and two sailplanes, all apparently assigned to the plant/airfield, continued to be observed.

REFERENCES

IMAGERY

(S/WN) All available imagery acquired from [redacted] was used in preparation of this report. 25X1

MAPS OR CHARTS

DMAAC. USATC, Series 200, Sheet 0282-22, scale 1:200,000 (SECRET)

DOCUMENTS

1. NPIC. [redacted] RCA-09/0021/78, *Arsenyev Airframe Plant 116 (S)*, Sep 78 (TOP SECRET [redacted] 25X1 25X1
2. US Army. [redacted] RAC-24/0003/80, ATC-II-1340-069-80-SAO, *MI-24 HIND Helicopter Series (U)*, Jul 80 (TOP SECRET [redacted] 25X1 25X1
3. DIA. [redacted] DDB-1923-2A-79-SAO, *Foreign Aircraft Production (FOAP) Communist World (U)*, Nov 79 (TOP SECRET [redacted] 25X1 25X1
4. DIA. [redacted] DDB-1923-2A-81-SAO, *Foreign Aircraft Production Communist World (U)*, Nov 81 (TOP SECRET [redacted] 25X1 25X1
5. DIA. [redacted] DDB-1923-2A-78-SAO, *Foreign Aircraft Production Communist World (U)*, Dec 78 (TOP SECRET [redacted] 25X1 25X1
6. DIA. [redacted] DDB-1923-4A-81-SAO, *Foreign Missile Production Communist World (U)*, Jun 81 (TOP SECRET [redacted] 25X1 25X1

*Extracted information is SECRET [redacted] 25X1
**Extracted information is classified CONFIDENTIAL
***Extracted information is classified SECRET

RELATED DOCUMENTS

NPIC. [redacted] RCA-09/0011/74, *Arsenyev Airframe Plant 116*, Oct 73 (TOP SECRET [redacted] 25X1 25X1

NPIC. [redacted] RCA-09/0008/71, *Arsenyev Airframe Plant 116*, Sep 70 (TOP SECRET [redacted] 25X1

REQUIREMENT

COMIREX J02
Project 542059J

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1

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